Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) An intracorporeal device comprising:

a) a helically wound coil having a plurality of windings forming a coil length and defining a longitudinal coil axis extending along the coil length; and

b) at least ten joining elements disposed along the coil length, wherein each joining element is located at a longitudinal position along the coil length relative to the coil axis and couples two or more coil windings, wherein a first series of joining elements are spaced apart longitudinally along the coil length, and a second series of joining elements are spaced apart longitudinally along the coil length, wherein the longitudinal positions of ~~at least one of the at least ten~~ the joining elements in the first series are transversely ~~is longitudinally~~ offset from the longitudinal positions of ~~at least one other~~ the joining elements in the second series along the coil length, such that the joining elements in the first series are staggered relative to the joining elements in the second series along the coil length.

2. (Canceled)

3. (Withdrawn) The intracorporeal device according to claim 1, wherein the joining elements form a non-uniform pattern along the coil length.

4. (Withdrawn) The intracorporeal device according to claim 3, wherein the joining elements have a density of joining elements per unit coil length that decreases along the coil length.

5. (Withdrawn) The intracorporeal device according to claim 4, wherein the density of joining elements per unit coil length decreases in the distal direction along the coil length.

6. (Currently Amended) The intracorporeal device according to claim 1, further comprising a third series of joining elements spaced apart longitudinally along the coil length, the third series of joining elements being transversely offset from the second series, wherein the joining elements of the first, second, and third series form a uniform pattern of joining elements along the coil length.

7. (Original) The intracorporeal device according to claim 1, wherein each joining element couples 3 to 10 coil windings.

8. (Original) The intracorporeal device according to claim 1, wherein each joining element is a discrete element aligned orthogonal to the windings.

9. (Original) The intracorporeal device according to claim 1, wherein each joining element is a discrete element having a width in the range of 0.1 to 0.5 mm and a length in the range of 0.1 to 1.5 mm.

10. (Currently Amended) An intracorporeal device comprising:

a) a helically wound coil having a plurality of windings forming a coil length and defining a longitudinal coil axis extending along the coil length; and

b) a plurality of joining elements disposed longitudinally along the coil length, wherein each joining element only couples two or more coil windings, and wherein ~~at least one of the plurality of~~ a first joining element[[s]] is longitudinally offset from ~~at least one other~~ a second joining element such that the first and second joining elements do not overlap longitudinally along the coil length as viewed from a direction transverse to the coil axis.

11. (Original) The intracorporeal device according to claim 10, wherein the plurality of joining elements includes at least 10 elements disposed along the coil length.

12. (Withdrawn) The intracorporeal device according to claim 10, wherein the plurality of joining elements form a non-uniform pattern of joining elements along the coil length.

13. (Withdrawn) The intracorporeal device according to claim 12, wherein the plurality of joining elements has a density of joining elements per unit coil length that decreases along the coil length.

14. (Withdrawn) The intracorporeal device according to claim 13, wherein the density of joining elements per unit coil length decreases in the distal direction along the coil length.

15. (Original) The intracorporeal device according to claim 10, wherein the plurality of joining elements form a uniform pattern of joining elements along the coil length.

16. (Original) The intracorporeal device according to claim 10, wherein each joining element couples 3 to 10 coil windings.

17. (Original) The intracorporeal device according to claim 10, wherein each joining elements is a discrete element aligned orthogonal to the windings.

18. (Original) The intracorporeal device according to claim 10, wherein each joining element is a discrete element having a width of 0.1 to 0.5 micrometer and a length of 0.1 to 1.5 mm.

19. (Currently Amended) An intracorporeal device comprising:

a) a helically wound coil having a plurality of windings having an outer perimeter and forming a coil length; and

b) a plurality of joining elements disposed on only a portion of the outer perimeter and along the coil length, wherein each joining element couples two or more coil windings, wherein the plurality of joining elements are disposed on the outer perimeter in a series of circumferential rings, each ring being spaced longitudinally from adjacent rings, each ring having one or more joining element spaced apart around the circumference of the coil, wherein the joining elements in each ring are substantially aligned longitudinally, and wherein ~~at least one of~~ the ~~plurality of~~ joining elements ~~is longitudinally spaced apart from at least one other joining element, wherein the at least one joining element does not couple to any of the two or more coil windings coupled by the at least one other joining element~~ of a first ring are circumferentially offset from joining elements of a second ring.

20. (Original) The intracorporeal device according to claim 19, wherein the plurality of joining elements includes at least 10 elements disposed along the coil length.

21. (Withdrawn) The intracorporeal device according to claim 19, wherein the plurality of joining elements form a non-uniform pattern of joining elements along the coil length.

22. (Withdrawn) The intracorporeal device according to claim 21, wherein the plurality of joining elements has a density of joining elements per unit coil length that decreases along the coil length.

23. (Currently Amended) The intracorporeal device according to claim 19, wherein the plurality of joining elements form a uniform pattern of joining elements along the coil length, with first, third, and further odd numbered rings having joining elements aligned longitudinally, and second, fourth, and further even numbered rings having joining elements aligned longitudinally.

24. (Original) The intracorporeal device according to claim 19, wherein each joining element couples 3 to 10 coil windings.

25. (Original) The intracorporeal device according to claim 19, wherein each joining element is a discrete element aligned orthogonal to the windings.

26. (Original) The intracorporeal device according to claim 19, wherein each joining element is a discrete element having a width of 0.1 to 0.5 mm and a length of 0.1 to 1.5 mm.

27. (Original) The intracorporeal device according to claim 19, wherein each joining element is disposed on less than 1/10 of the outer perimeter of each winding.

28. (Currently Amended) A medical device comprising:

a) an elongate shaft having a proximal end and a distal end;

b) a helically wound coil having a plurality of windings having an outer perimeter and forming a coil length disposed about a portion of the distal end of the elongate shaft; and

c) a plurality of joining elements disposed on only a portion of the outer perimeter and along the coil length, wherein each joining element couples two or more coil windings, and wherein ~~at least one of the plurality of joining elements is disposed more distal than at least one other joining element~~ the plurality of joining elements are disposed in two or more series, wherein the joining elements of each series are spaced apart along a longitudinal line, and the joining elements of adjacent series do not overlap longitudinally.

29. (Original) The medical device according to claim 28, wherein the plurality of joining elements includes 10 elements disposed along the coil length.

30. (Withdrawn) The medical device according to claim 28, wherein the plurality of joining elements form a non-uniform joining element pattern along the coil length.

31. (Withdrawn) The medical device according to claim 30, wherein the plurality of joining elements has a density of joining elements per unit coil length that decreases along the coil length.

32. (Original) The medical device according to claim 28, wherein the plurality of joining elements form a uniform joining element pattern along the coil length.

33. (Original) The medical device according to claim 28, wherein each joining element couples 3 to 10 coil windings.

34. (Original) The medical device according to claim 28, wherein each joining element is a discrete element aligned orthogonal to the windings.

35. (Original) The medical device according to claim 28, wherein each joining element is a discrete element having a width of 0.1 to 0.5 mm and a length of 0.1 to 1.5 mm.

36. (Currently Amended) A guidewire comprising:

a) an elongate shaft having a proximal end and an opposing distal end;

b) a helically wound coil having a plurality of windings having an outer perimeter and forming a coil length disposed about a portion of the distal end; and

c) a plurality of joining elements disposed on only a portion of the outer perimeter and along the coil length, wherein each joining element couples two coil windings, and wherein ~~at least one of~~ the plurality of joining elements are spaced apart along a plurality of longitudinal lines, wherein joining elements in adjacent lines have ~~is disposed closer to the proximal end than at least one other joining element with~~ no longitudinal overlap.

37. (Original) The guidewire device according to claim 36, wherein the plurality of joining elements includes 10 elements disposed along the coil length.

38. (Withdrawn) The guidewire device according to claim 36, wherein the plurality of joining elements form a non-uniform joining element pattern along the coil length.

39. (Withdrawn) The guidewire device according to claim 38, wherein the plurality of joining elements has a density of joining elements per unit coil length that decreases along the coil length.

40. (Original) The guidewire device according to claim 36, wherein the plurality of joining elements form a uniform joining element pattern along the coil length.

41. (Original) The guidewire device according to claim 36, wherein each joining element couples 3 to 10 coil windings.

42. (Original) The guidewire device according to claim 36, wherein each joining element is a discrete element aligned orthogonal to the windings.

43. (Original) The guidewire device according to claim 36, wherein each joining element is a discrete element having a width of 0.1 to 0.5 mm and a length of 0.1 to 1.5 mm.

44. (Withdrawn) The guidewire according to claim 39, wherein the helically wound coil has a proximal end and a distal end and where the density of joining elements per unit length decreases from the proximal end to the distal end.

45-63. (Canceled)